

A NOTE ON THE FUNGUS *ENDOGONE*

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ABSTRACT

The recovery of *Endogone* spores from South African soils is reported for the first time.

UITTREKSEL

'N NOTA OOR DIE SWAM *ENDOGONE*.

Die verkryging van *Endogone* spore vanuit Suid-Afrikaanse grond word vir die eerste keer gerapporteer.

Of the several kinds of mycorrhizal fungi, the vesicular-arbuscular group belonging to the genus *Endogone* is by far the most common, infecting a wide range of plants (Gerdemann, 1968). Because they cannot be cultivated on culture media, they have received less attention than those fungi isolated by conventional methods. Although reported to be widespread, there is no record of their recovery from South African soils.

Rhizosphere soil together with the roots of plants were suspended in water and sieved to retrieve *Endogone* spores according to the method of Gerdemann and Nicolson (1963). Mesh diameters were 850, 250 and 125 μ . Washed material retained on the 125 μ sieve was suspended in water in a petri dish marked with thin parallel lines, 3-4 mm apart, on the outer surface. This enabled a more thorough search to be made under a stereo microscope (X25). *Endogone* spores were picked up with a capillary tube and suspended in water for examination under a compound microscope.

Several different spore types were observed. Noteworthy is the occurrence of a peculiar type (see Fig. 1) which resembles the honey-coloured sessile spores described recently in detail by Mosse (1970). This particular type was discovered by Gerdemann and Nicolson (1963) who described it briefly. To date reports of the occurrence of honey-coloured sessile spores have been from the United Kingdom (Gerdemann and Nicolson, 1963; Nicolson, 1967), West Pakistan (Khan, 1971), Australia and New Zealand (Mosse and Bowen, 1968). The specimen reported in the present study was found in the rhizosphere soil of a maize plant from the Outeniqua Experimental Farm, George, Cape Province. Large numbers of the type were observed.

This is a preliminary report of an investigation in progress.



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FIG. 1.

A dense honey-coloured resting spore attached to the stalk of an empty mother spore.